

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-84. (canceled)

85. (New) An apparatus for varying a rate of fluid flow along at least one pathway, comprising:

at least one chamber in fluid connection with said at least one pathway, said at least one pathway being adapted to allow fluid to flow into and out of said at least one chamber, said at least one chamber being defined by opposing walls at least one of which is elastically deformable;

a volume of a heat meltable material situated in said at least one chamber, said material being adapted and arranged such that when in a solid state it is capable of holding said opposing walls of said at least one chamber together to provide a defined volume of said at least one chamber having a first value, and such that when said material is in a melted state it allows said opposing walls to come apart to provide a defined volume of said at least one chamber having a further value larger than said first value; and

heating means for selectively applying heat to said heat meltable material to cause said material to melt in use and thus cause said at least one chamber to change volume from said first value to said further value, thereby reducing an apparent pressure in said at least one chamber to cause a rate of fluid flow along said pathway to vary.

86. (New) The apparatus as claimed in claim 1 wherein:

said at least one chamber is returned to said first value of defined volume by a simultaneous application of external pressure and heat, followed by removal of said heat, causing said material to re-melt and re-solidify, fixing said opposing walls one to another.